

9/12

1879.	Sun.	Mon.	Tues.	Wed.	Thur.	Fri.	Sat.	1879.	Sun.	Mon.	Tues.	Wed.	Thur.	Fri.	Sat.
JAN.	..	..	..	1	2	3	4	JULY.	..	..	1	2	3	4	5
	5	6	7	8	9	10	11		6	7	8	9	10	11	12
	12	13	14	15	16	17	18		13	14	15	16	17	18	19
	19	20	21	22	23	24	25		20	21	22	23	24	25	26
	26	27	28	29	30	31	..		27	28	29	30	31	..	..
FEB.	..	..	..	..	..	..	1	AUG.	..	..	..	..	..	1	2
	2	3	4	5	6	7	8		3	4	5	6	7	8	9
	9	10	11	12	13	14	15		10	11	12	13	14	15	16
	16	17	18	19	20	21	22		17	18	19	20	21	22	23
	23	24	25	26	27	28	..		24	25	26	27	28	29	30
MAR.	..	..	..	..	..	..	1	SEPT.	31	..	..	..	..	..	..
	2	3	4	5	6	7	8		..	1	2	3	4	5	6
	9	10	11	12	13	14	15		7	8	9	10	11	12	13
	16	17	18	19	20	21	22		14	15	16	17	18	19	20
	23	24	25	26	27	28	29		21	22	23	24	25	26	27
	30	31	..	..	..	..	..		28	29	30	..	..	..	..
APRIL	..	..	1	2	3	4	5	OCT.	..	..	..	1	2	3	4
	6	7	8	9	10	11	12		5	6	7	8	9	10	11
	13	14	15	16	17	18	19		12	13	14	15	16	17	18
	20	21	22	23	24	25	26		19	20	21	22	23	24	25
	27	28	29	30	..	..	..		26	27	28	29	30	31	..
MAY.	..	..	..	..	1	2	3	NOV.	..	..	..	..	..	..	1
	4	5	6	7	8	9	10		2	3	4	5	6	7	8
	11	12	13	14	15	16	17		9	10	11	12	13	14	15
	18	19	20	21	22	23	24		16	17	18	19	20	21	22
	25	26	27	28	29	30	31		23	24	25	26	27	28	29
	..	..	..	..	..	..	..		30	..	..	..	..	..	..
JUNE.	1	2	3	4	5	6	7	DEC.	..	1	2	3	4	5	6
	8	9	10	11	12	13	14		7	8	9	10	11	12	13
	15	16	17	18	19	20	21		14	15	16	17	18	19	20
	22	23	24	25	26	27	28		21	22	23	24	25	26	27
	29	30	..	..	..	..	..		28	29	30	31	..	..	..

W. A. Pilsbry.

Notes on Clves, Mollusks,
"Flora"

of
Iowa City

→ From April 24th to August 1th.

1880



Figures refer to Coe's Check
list.

S.	—	"	Shimok.
P.	—	"	P/s by.

1) **APRIL 25.** (2 ova.)

Sayornis - 2. (252-1. Unfinished
slanter house cliff)

(I) 5 ova, one thickly marked
one with a dot, and 3 im-
maculate. (ova $\frac{1}{2}$ advanced.)

(II) In Lince Kilu, above cliff.

252 (C) - 3.

Lince Kilu at Sciurus
region. Inaccessible.

252 - 4. - 5.

Unfinished cliff on upper
Sciurus region.

252 - 6. + 7.

Crescent stable. (I) 3 fresh ova.

S. + P. Look over: all immaculate.

(II) structure; Diameter outside,

$1\frac{1}{8}$ cent. inside $6\frac{1}{2}$ cent. Depth
outside 8 cent. inside

base of weeds, mud, + moss
of dark ^{red} grass culms(?) + some
hair; a little silk weed.

(1) *Zora. immaculata* ^{fresh} short; I took
one: About 1.75 meters high;
(more clay mud + less moss)
under shelf of rock by river,
252-8.

Unfinished; on cliff (low) in
Buteo region;

Pandion ~~Civets~~, (Dead: by cliff. Scimus.)

^{shoe} *Oryx*, (Pond region's Rapid Creek)

Dendroica. Yellorum, abundant

Linnaea reflexa (Pond region)

Helix, profunda, hirsuta,

Procyon, clausa multilinea

Succinea, oralis, obliqua (few)

Dendroica palmeri (S. shot)

Sciurus carolinensis 4 young.

Pelmonax all. Pilsing

(3) *Hepatica acutiloba*; *Thalictrum*
anemonoides; *Viola pedata*
Ranunculus repans
Trillium nivale; *Dicentra*
cucullaria; *Sanguinaria*
canadensis; &c.

(4)

May 2nd 1880

Buteo borealis (1)

Deserted: in upper Catfish
region. Diameter, outside 9 deci-
meters. inside $2\frac{1}{2}$ decim. Deep. outside
4 decim. inside 1 decim.

Outside of *Quercus rubra* twigs
of $\frac{1}{2}$ in. diameter down:

Inside leaves (*Q. rubra*) (ribs of)

and a little bark:

Contained one ovum. | *See Q. rubra*
| about 80 ft.
| high.

{ Minus, Icterus, Pyrausta,
{ *Dendroica* &c now abundant

May 9th
P.O.

Accipiters (potential) destroyed. (Broken over
+ torn down)

Sciurus region. (cliff over)

252 - 4.

contained 5 ova: all but 1 imm-
aculate. (Fresh) took + broke 1 (S-I)

" - 5

contained 5 ova, one with
rather large dots (?) rest im-
maculate. (Fresh) took + broke 1,
Harporhynchus rufus () 1

In Muddy face rec.

contained 4 ova

(B) marked on larger

I took one, + B. took one (tr)
Structure in thick thorn
bush about 4 ft. high (3 ft.)
ova fresh.

252 - 9, (Lower Catfish region on
cliff at cache) Contained
4 ova, all but one immaculate.
I took marked one, + I took a
Cotyle-like one + broke it.

Picus pubescens, - 1. just above cliff
above Crescent.

Structure in *Ulmus*, (dead top of)
just finished. Shinnick climbed
+ cut it open.

Molothrus speciosus - 1. Linder boy
tells me of a *Sayornis* structure
containing 2 ova of above.

From Greenland.

Palmouata *livestral* (set. L. 2, a slender
in. 1/2, monodon, clausa (few)
multilocala (few) comaral ")
Tupa —, — (few)

(Between this & next family comes
the "Popoids" (shinn) I got about 6.

Limniadae, *Limnea*, reflex.

Only one, *familiaris* (Pilsby). The

common small *Limnea* I am

or I new species of *Limnea*.

Planorbis *probus*, *respirans*,

luteolulata (Pilsby) & the

other species of which I had only

one, also *Physa*, *Cycas*, *Valvat*

paludina (2 species) *Planorbis*

livestral, *Physa* *livestral*, &

a few *Succinea*, *Indistincta*

1 clayey clay

Rhus glabra, *Castilleja*

occidentalis (bark d. comp), *Campocarpus*
rotundifolius, (bark d. comp)

also some filices, &c. (Carnegia)

Orchids sending up flower

stalk. *Asplenium thelypteris*

Spizella socialis - 1 seen up face

handly face region on south

slope. Structure: about 3-4 in.

from ground up, at least partly

by grass & partly by clumps.

in a small clump of which it

was found. Diameter outside

3-3 1/4 in, inside 2 in. Soft

outside 2 1/4 in, inside 1 1/2 in.

the whole consisting of green moss.

+ very few blades. Inside
of this finer grass (different
species) + lined with horse
hair (mostly black all long) lining
rather loose + not extending
to top of structure.

Contained 3 ova. (did not take
it.)

May 12th

Spizella pusillus - 1.

Found it up to this
structure + took it. It con-
tained 4 ova. The 1st 2 + 2
2, primitive + 1st well de-
veloped.

Spizella pusillus - 2. (found by S.
about 100 yds. from (1)).

Spizella pusillus

3-7
4-1
5-2
6-3

2.
1911. The penicillae - 2, (unexplained
no. 1.) Machine not stiff
some not, contained in a
small bottle - some, both at
and also, as is & structure, 1

2) Pizzella. 1. Shmuck got
bunture + ora (now 4)

Sayre's - 16, all quality money
10 mill. and (some mill) 1000.

Cyanurus cristatus - 1. (The *Cyan-*
-*us* form in our yard) contained
4 ora. Ground color dark brown
back 3 ora. Will describe struc-
ture in kennerly's ora fresh

Melospiza fasciata. (See Supplement—
page 100.)

May 13th

Virens migratorius - 1 In front of
Alamogordo in maple about 10 ft
high contained 4 fresh ova.
I took one.

(My friend B. S. and I
were coming home
from Society on some
thing else, and I
climbed trees
all day May 13th)

May 15

Sayornis fusces - 11. under sod
in old quarry west of observatory
4 ova. all more or less worked

12)

May 16

Staphyrus rufus 4. (In the
vale that goes N.E. of Rapid
creek) saw one on structure
as yet is over. In the same loc.

* *Staphyrus rufus* - 5. (Up
Rapid creek 1/2 mile up.) In
a screen between two birch
trees, formed by the branching
of the top of one which is cov-
ered by a grape vine from
the other. Structure about
8 ft. high. Contained 4 or
5 birds confluent in ring
at top - 1st. 1st one.
Alnus var. (Rapid creek, potential?)

13)
Alnus carolinensis, - 1 (In Rapid
creek region in willows by
river this side of creek.)

Structure in Salix about
4 ft. high (structure, not Salix)

Diameter inside, 3 in. Outside,

6 in. Depth " 2 " "

4 in. Contained 2 ova, took one

Alnus carolinensis, - 2, (about
- 50 yds. from above.) In Salix
about 5 ft. high, 2 ova,
took one (took it and above)

x *Alnus carr* - 3 (near Haysen-
- uchu up to 5.) In thorn
about 6-7 ft. from ground
Outside of course slough -
- grass, for. (took one)

14)
Agelaius. At confluence of creek
+ river. long potential.

Minus (Shinnick) 2 structures in
hazel patch in rapid. region
near Minus (D).

Turdus mustelinus (Shinnick)

Found here with 2 main
thorn tree. Young low. N. E. E.

Rapid region. (north crescent region)

Vireo (Shinnick) showed me
river structure in hazel
region

Sayornis fusca 12. (Shinnick)
on Crescent cliff. Young.

(13)
Pulmonata, principally Limnea —
(familiaris) millen alive, a few
succinea, planorbis, (several species)
among them a very flat succi-
na. 1 idyalina.

Orchidaceae. Found one Cypripedium
puberulum.

May 20.

Tricaphaea ludoviciana - 1 (H.P. behind
Trills a few ft.) about 7 ft
high in borrows(?) contained
4 curiously marked ova.
markings very large, ground
color dark.

Took over. Fresh

10)

May 17th '95

Diapleura auralis - 1 (Skinner) on
crescent bluff. 6 ova. fresh.

1 *gibb*

Spilopteryx (Skinner)

In hollow north of Tifis cr-
ack. Very well concealed
contained 3 ova. 1 hatched.

Tamias sp. on edge of rapid
creek in low, damaged
stump. contained 7 ova
I have 3. (small embryos)

Pyrausta rubra. 2 structures
south of creek.
on central process

with 1 molothrus over
and the other 1 over with
one molothrus over,
I have one from last class
one of the molothrus over.

19th

Picus rubescens (Shinnick)

at a full creek spring.

I have 2. 1 in advanced.

2 2nd

Canturus carolinus (Shinnick)

from Poils across the river

over fresh. I have 2.

Turdus mustelinus } (Shinnick)
Sialia sialis

one over of 1st & 2nd last Shinnick
I don't know when.

18) May 2 3rd

(all by myself & Linck)

Turdus mustelinus. In Radda's
field in elm tree about
9 ft. high. measured

Diameter outside - $4\frac{1}{2}$ in.

" inside - 3 "

Depth " - $2\frac{1}{2}$ "

" outside - 5 + in.

a little mud, 11 ova.

Mimus car. ^{from} over the water by upper
ice house, 5 ova.

" " over water ^{4 ft.} in birch

tree by very first tyrannid. 1 ova

" " (1st on page 13)

contained 4 + one lock + 1st = 5

(2 ^{1/2} in. 10 10 10)
contained 4 ova + one I took +
took - 5

Harporhynchus, In thorn bush
by roadside bathhouse,
4 ft. high, 3 ova.

Sialia, In s-w. corner of police
of Woodville. 5 ova. Took one
Harporhynchus. N. W. cor. of
Scrub. which is N. E. of
roadside, very thick
thorn bush. 4-5 ft.
high 4 ova. Took one
marked evenly.

Minus, confluence of river
+ rapid creek in saline
6 ft. high 4 ova. Took one.

Mimus. up the creek 300 yds. from
last. In low bush over creek
4 ova. (long) took one.

" same place as Lani-
-nictura) In Salix 4 ft.
high. 3 ova.

" up the creek from
last on hazel about
5 ft. high 1 ova.

Zenaidura. on edge of pond
up rapid creek. on stump
in water 2 ova.

both were taken.

Mimus. up Papilo creek
in thorn. 3 ft. high
3 ova

Pyrauga. opposite Lin-
coln house, on horizontal
limit of R. alba, con-
-tained 2 pyrauga ova +
3 molothrus ova

Pyrauga	outside	in.
"	inside	"
depth	"	"
"	outside	"

22)

May 2nd 1900

Alouatta palliata, seen above the
in group of 3 ft. high. Some
look one.

May 31st

Toniakaea, in upper Whiskey Gulch, in
crab tree about 7 ft. high, 3 long,
dark ova. small marks. one young
with a little white down.

Harporhynchus, in central Gulch.
In thorn tree 4 ft. high. brown
fine markings nearly over
a dark ground - also

Spizella pusilla. same place.

In clump of Hazel 1 ft. high
in sheltered partly in grass
diameter inside $2\frac{1}{3}$ in.

depth " $1\frac{1}{3}$ "

Nov. B. Shinnick took 1 + 2 tows.
Geothlypis trichas? tower
down the gulch. by a
pile of brush overhung
by grass (dead) Nov. 4
Molothrus ovum. (see further
on.)

Minus carolin. below the above
in 1st + 6(P) + 10 over tree.
Young.

" lower rapid creek.
in willow 4 ft. high Nov.

24)

Mimus carolin. One hanging
crescent cliff. (Cubal) 4 one.
Sayornis fusca. (which contains
young on May 16. page 14)

Crescent cliff. Iowa. took
one both slightly marked

Harporhynchus, on ground between
cinders + Crescent. In clump
of *Quercus alba* sprouts one ft.
high on north hill-side

Structure on ground. Iowa
with slightly confluent marks
took 1.

Amelia migratoria west of Rowleys in
large solitary birch. young
ages. 10 ft higher fork

Picus pubescens long. S. E. Co.
of stone pier in tunnel

Timber over the river.
 The land box sides are 5 ft.
 in. in diameter about 4
 13 ft. high. Hole about
 7 " " " Diameter of
 aperture $1\frac{1}{4}$ in. in. of
 inside 3 in. depth from
 aperture to bottom $7\frac{1}{2}$ in.
 4 7.2 inch. This made
 no racket.

Certhia carolin. (page 17)
hole about 14 in deep,
in willow - 12 ft high
between clams + feather
nest.

26)

Psittularia citrea on Rapid creek
bottom in hole in stump
4 young ones.

Sturnus vulgaris on clay bank
up rapid creek a little
young & one over which
Shinnick has.

Spizella pusilla, up Rapid.
young & one over which
Shinnick has

Parus in post on north side
of Rapid creek bridge
full complement of
deserted broken ova, 2 +
lunch got some.

27/

Leurostoea vestiva, 4 ova
Got 1 + Shinn K 1.

Succinea up rapids creek
got bottles of them,
alive.

Chelonians. - saw lots of
above dead + alive.

Got no *Geophila*.

May ~~June~~ 1st 1891

Mimos carin. In apple tree in
our yard. 3 ova.

Ceothlypis richas (Page 23)

Shinn K took ova.

2

5 ova, Shinn K

took none.

30

28

Sturnus arcticus, in "Cypripedium
hollow" 5 eggs + 4 incubated,
Polioptila caerulea, unfinished
incubation in Uhus.

June 1st.

T. migrator, in cottonwood
(nest)
over our garden 4 eggs, 1 hatched

June 6th 90

Albino above 1st beehive & below 1st
fence on mill road in birch & grape
vine, tipped over 4 eggs.

" Just above 1st fence on
thorn tree, none as yet

" below same tree 4 young
eggs.

29)

Tyrannus car. in "ice" bending
over river. 8-9 ft high below
beginning of woods & above 2nd
ice house. I have one
with streaks of red. no light
marks.

In mill bottom (coral) in
solitary. 400 more.

25 ft. high on horizontal
limb. 400. took 2.

Mimus in bush in fall
top of tree (corn) in opening
in timber below coralville
opposite rocky shore. 300.

Cyanospiza above cliff (Papa)
1000 + 1000.

Setophaga " 1000. 31. 1000
400 in stone.

30

Styx, found on east side of a
tree - 10. (see on farther)

Sayornis fuscus in Kila (see p.

1) 5 or 6 all immaculate.
but one which is thickly
marked, far advanced,

31)

June 13

Donnera aestiva (L.) Schlecht.
- 1 ft. in diameter & 7 or 8 ft. high
over a pond in timber
- young ones could almost
- slip. Make a "chink"
- in the bark at the base

Zenaidura macroura in plains
orig. 1/2 mile below
water 1/2 ft. high. 2000
took one

32

Coccyzus americanus south
 nest $\frac{1}{2}$ mile in New Orleans 1st
 high. 2000 ft high. I think says
 brooded in the nest 3 days.
 From a pine tree, the willow
 creek boat station. 200 ft high
 for a far lanceet.

Tyrannus ... of ...
 hanging water. 4000 ft high
 with small water. (11th ...)

...
 ...
 ... north side of eddy
 3000 ft high like last ...
 Agelaius. ... amount of
 ... with 4 young
 young ...

33

33)

1000 + 1000 (like 2000)
1 with 4 on a $\frac{1}{2}$ advanced.
in with all in large egg,
have 2 of them.

Tringoides on 6th
4 on a far advanced

June.

Collins, 4 on a, 1 on a, from
H. d. large, at Quailhouse

June.

Erythroneura affinis 4 on a
in potato patch, $\frac{1}{2}$ advanced.

34) 20th June

T. migrator in *Ulmus albus* com.
north of mile over "stream" 7-11
high on horizontal limb & on
limb R 1. (fresh)

Pyraugambax. South of road its
point from the chain road &
north of *Ulmus* of 7-11. 3 *Pyraugambax*
seen. 1 slut with fine marks
(typical)
2 typical. 2 *Pyraugambax* com. & also
1 of each broken on ground.
Pyraugambax *Ulmus albus* Limb
horizontal 7+ ft. from tree
7 ft high, not directly on
limb but on twig bearing
branch of twig (most fresh)

3

East of Crescent

House + N.E. of

"

Spring a difference, in d. alba

12 ft high. str. close

directly on line 5 ft

from top, lower very
dark.

Minus - on west side of
river opp. north end of cliff
overhanging water, 30 ft.

" north of cattish

in stone tree 7 ft high.

30 ft

Gouphae. (top of this page.) Structure
started, some decayed

36)

Conchology

May 26 77

New Linnæidae, -

Linnæa - *L. decidiosa*, Say, 1822.



whorls 6 very convex ant-
-ire deeply impressed
lip widely appressed on columnella
striae obscure. Figure too cor-
-pulent. differ from all
others in entire. (many)

Physa -



Distinguished
by shape of columnella & by
upper part of lip.

Many (?)

Physa, Say, 1822.



Extremely obtuse,
whorls few
numerous

31



convex
whorls 5, apex

elongated acute columella
very much twisted
only one found

Planorbis exacutus



(numerous)

Several other Physae +
Linnae.

Got tipped over.

" Cyprapiscivora (pink) one
north hillside above catfish
Sphrapiscus young

38 June 27th.

General mts. started at noon
went north on road as far as Rowley's
then went west most to river
then north along cliff + got fishes
then went swimming + came along
a little hollow + out to road
then we crossed road + went south
along hollow that comes out at
old stone mine cellar by Lammings
here found (at north end —

Spizella pusilla — *Strachan* took
with clover a few little
bushes near, 4000, Shuck took
one + I took 2. (fresh.)
Went by the 1st fence *Strachan*

39

Vireo olivaceus with 4 ova
large markings in 2 ova
in 6 ova. (far advanced)
Turdus mustel. (on dureau alba
diameter 2+ ft.) 30 ft. high +
10 ft from tree on ascendant
limb, 3 young. { this is between
lines 3 and 4
on preceding
page
Turdus mustel.

1/2 way up cliff
(line 4) on horizontal limb
3 ova,

June 29th.

49)

July 3rd

Took a trip to look up the occurrences
 of the same to the river. Found just
 above the same (15 ft) the thickness of
 Minus. same area: a few inches or
 but 1 ft. higher. 4000.

July 4th

Started early & went to the river
 by road. then took boat & went to
 a fish camp where I think got lost
 & didn't get in till I got to the river.
 went in swimming at night. got into the river
 then went up to Turkey creek on
 the way I found Eudroca with
 young, we went up creek (?) & came
 out on the river. then went up
 where it was to meet & climbed.

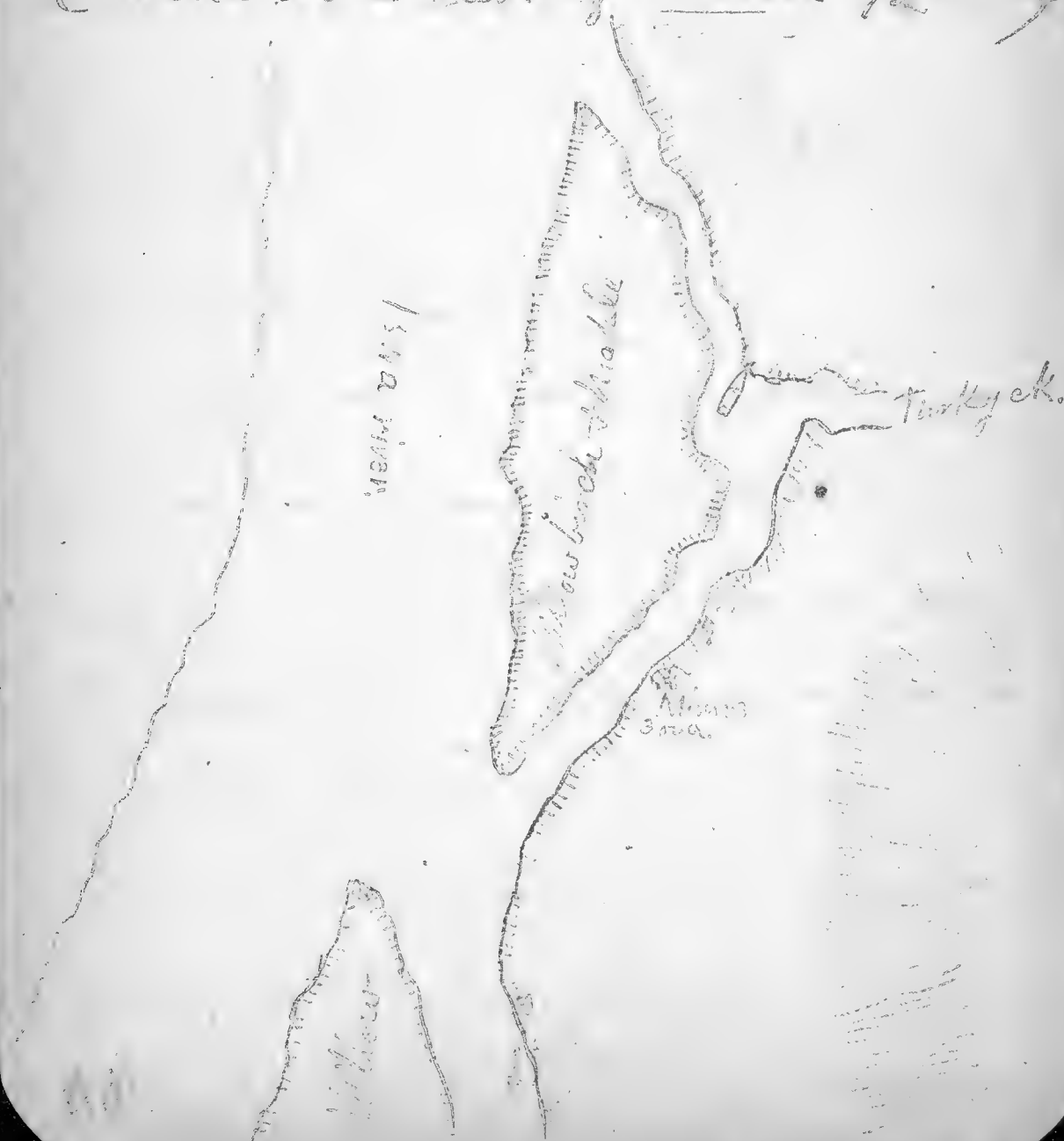
41

over cliffs covered with Algae

In creek I found *Limnaea*, *Gova*.

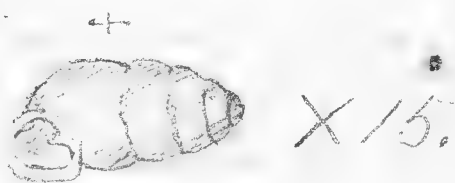
found cave in cliff. Lots of
 celars. aimed like h - coming
 down. got home at 4.

(*Sialia* *Gova* east of Crescent $\frac{1}{2}$ mile)



42 July 12

Chick and Pyrauga, B. M.
near place where we found *Picea*
pubescens + *hyperborea* + c.



Forficula corticaria Gay
very small cylindrical, white
aperture small, a small hole
on front wall + a small brown-
ish one on collumella for middle.
Lip not reflected on body
whorl as in *Pannifera*. +
outer inflexion bent angular
on a plate, striae five.

93

Classification of Terrestrial Order Pulmonata.

Section. Adelopneumona.

Suborder Geophila.

Family Succinidae

Genus Succinea

Family Helicellidae

Marylandia (Berk)

Ayalina (Lx)

Strobia (Morse)

Patula (= Anzispira) Wied.

Helicodiscus (Morse)

Family Helicidae

Mesodon Rafin

Urosalpinx (Lx)

Trochodonta (Morse)

Antretrochoda

Family Pipidae

Pupa = *Senecioidea* Ill.

Family Limacidae

Limax

Section-*Phaneropneumona*.

Suborder Ectonothauma.

Family Helicinidae

Helicina

Suborder Limnophila

Family Limnaceae

Limnaceae !

Planorbinae

Anacylinae

L. superinae

My classification of Geophila,
Order Pulmonata.

~~Order~~ Geophila.

Section Adelopneumona

~~in~~ ~~order~~ Geophila.

Family Helicidae.

Helicinae

Helicellinae

Succinea

Pulicidae

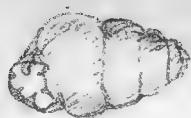
Limacinae

Section Phaneropneumona

~~Section~~ Ectopathalma.

Family Heliciniidae

Genus Helicina.



Succinea zaidli (Binney)⁺

Teeth 6. 2 on parietal wall, the
one nearest columella smaller than
the large tubercular tooth on
columella, & a smaller one on
anterior lip. There 2 short teeth
in outer color
(Length, long, / breadth, 7/8 in)
Whorls 5.



Succinea obliqua (Say)

Rich golden color
darker than *ovata*.

Lines coarse & irregular,

Columella & lip equally

curved, Aperture inflated

47

posterior angle rounded (3)

My specimens from Eddy.

(July 20) Animal retired & adhering
to grass & leaves.



Freemania ovalis. (Gould)

Light golden or straw-colored
streaky fine, whitish, found
in very damp, marshy, places
such as below Coalville. Larva
collected 1 h. June 1st in
April 1880. Also one found
in K. Tyke (fig. 8.) in *Pupa*
marginalis (ex.)



(No good.)

S. obliqua
Succinea groenlandica (name very doubtful!)

Fossil & bleached (in clay
 deposits with *Helicoma* occa-
 sionally, *Patula corpesi*, *Patula*
 — ? & several *Succinea*;
 not so coarsely striate as
S. obliqua. Pith is deeper
 & more worn whorl than
 former, callus on columella



S. obliqua (No good.)
 " " " " " "

As we get round we see
 specimens of this, but as it
 is not a dark color, it is

#9/9. last species the same is
very abundant.

(Scaevola) or

Scaevola isogona, Ag.



— 1849

It is the last very large
inflated. (Scaevola) but
could not find a little
flattened by a small
umbilicus being a thin
T. isogona. It is posterior
very well rounded. &
usually not append
on body when.

Life apparently not
partaking of carnation
peculiar to *Helicina*
and especially *Helicina*.

Col. Hatten. Light brown. Isogona. Inflated. Abundant.

50

Exclusively abundant
at
city.



Palurina integra.
Common in the area.

Height 6 to 6 1/2

not increasing as
in last; but striae irregular
+ period of growth apparent.
Growth in striae wavy(?) or
absent. Lip anteriorly
rounded + sharply angulated
posteriorly. Columella flat-
slightly arched(?)

Umbilicus a mere cleft.
Lip appressed on columella
from umbilicus back. Color is
an olive(?) green (Very common
at 10 N.A. City)

57



Lupa (Loligo?) ——— ?

Found August 6th '88
about $\frac{1}{2}$ mile south
of Hartmans in woods in
mound at foot of tree.

Shells not so fine as *Eupa-*
costicaria. pellucid. white.
One long curved lamella
far both on columella
& reaching far into the
shell. Whorls 5. aperture
round. " rapidly
decreasing. body which \approx
 $\frac{1}{2}$ total length
breadth equals about
 $\frac{1}{2}$ length also.

[illegible]

53¹ must be a good place
for ov. and perhaps
also Accipiter cooperi
(flying over Hartman's) +
Corvus

Saw spindled little
flycatcher (Empidonax?)
crested, plumbeus (?),
yellowish suffusion (?).

Saw no positive marking.
Among shells were Helix
alternata (2), Large Limax
with light markings (3)
Pupa corticaria (2) a Verigo
in form like V. gouldii but
underrata, Hyalina - ?
H. - ? + Pupa - ? (small)

Black lion lunipons.

Structure composed of a few
twigs (very small), smartweed,
(grass), roots of various kinds
& weed stems (fine). Very
amount of spider webs &
young spiders.

This is from the school
house. The kind of bottle
shaped structure is
always black. Transition
wood from sloughs &
pattens.

Young are now flying
about in great numbers.
Flowers frequent of course.

55 Nest is loose & shapless. 1

Zonites orbiculus, Say.

① Hyalina ——— ?

Whorls 4. Apex has this appearance & suture rather shallow. Striae more apparent above than below, but to eye apparently wanting. Growth lines very ^{to} apparent. Spire more elevated than Macrocyclus.

② natural size.

③ Bad view.

④ good(?) view of aperture, found same place as Pupa (Page 51)



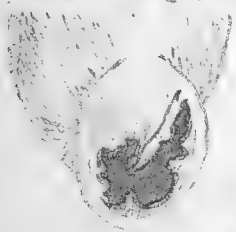
No good.



A column showing
teeth, columnellar
tooth too attenuated

All are throat teeth but the columnellar
which is sinuous + columnellar.
about the middle it has
a square projection toward
inter-lip opposite a low
tubercular tooth in latter.
umbilicus perforate. Lip widely
reflexed, but not in in
margin.

Cylindrical, 3 lines, & about
2 1/2 times as long as wide.
columnar rather deep (2 1/2).



Critically examine
with naked eye. The
a feature appears tooth d

51) then; first on posterior
(outer) angle a long
lamellar tooth exten-
ding from aperature to
the base with a projection
on outside, next far-
within a tubercular
tooth almost opposite
latter, then a larger
one on the extreme an-
terior. Then another
farther in opposite the
2nd, and a few small
remote ones between
last & 1st.

All teeth but 1st are very
remote. ~~now~~
Pupa armifera

~~Pyra (sericea) pallax~~

August-22.

Went to catfish
pond in afternoon
got lots of *Physa*
lunata & placed by
planorbis specimens

+ a beautiful
one (S. Higgins)

August-29

At Mineral and
Sage and grass
and many
persons are
to be seen
to be seen.

Left - 5th

Shank were to
Hunting, I'll
have

11 Aug.

afternoon

I went to

excavations & got

Helix perruginea (1)

" *monilosa* (1)

" *hirsuta* (about 4)

" *alternata* (3)

Macroychia 1 like one

1 *Planorbis*

Of these, the
2nd, 3rd, & 4th
were alive, also
a very large number

In morning I
saw Thackley of
the

Wages raised on
+ after Sept 4th
to \$2.50 per week

The Limestone,

of the

(1) *Myriophyllum*
spicatum *sp.*
Mammals

(2) *Myriophyllum*
spicatum *sp.*
Mammals

(3) *Myriophyllum* *sp.*

(4) *Myriophyllum*

(5) *Myriophyllum*

(6) *Myriophyllum*



Unilateral view

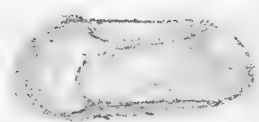
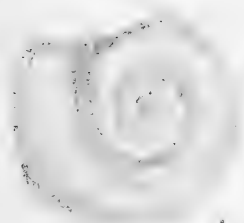
of the

specimen, no. 24 1/2

also not so well
defined, Stiracione more

regular + linear,
leaf thickness - not thin!
entire base - elongate -
tub. - not thin! 111
whole except 111 not shouldered
in last.

(1) Stiracione - 27



very flat, whole of
spine not shouldered (except
127 mm)

Most easily identified
by the regular appearance
of base, which is not
more depressed than
in my largest P. bicarinatus
Apex only moderately
depressed.



Plummer's — ??

Same shell on a
larger plain.
Absolutely no tangible
difference.

~~~~~

Above(?) carinated sharply  
perfectly symmetrical.

rather coarse striation

---

Same, but not coming  
+ less symmetrical

---

very unsymmetrical

---

100

---

We are apt to see  
their parents were  
order to save them  
minions late, discharged  
bankrupts, debauchees, and  
class,—people more apt to  
to promote the well-being



| 1880. |      |      |       |      |       |      |
|-------|------|------|-------|------|-------|------|
| JAN.  | FEB. | MAR. | APRIL | MAY. | JUNE. |      |
| Sun.  | Sun. | Sun. | Sun.  | Sun. | Sun.  | Sun. |
| 4     | 1    | 7    | 4     | 2    | 6     | 13   |
| 11    | 8    | 14   | 11    | 9    | 14    | 20   |
| 18    | 15   | 22   | 18    | 16   | 23    | 27   |
| 25    | 22   | 29   | 25    | 23   | 30    |      |
| 1     | 2    | 9    | 28    | 25   | 1     | 8    |
| 8     | 5    | 16   | 25    | 22   | 8     | 15   |
| 15    | 12   | 23   | 2     | 19   | 15    | 22   |
| 22    | 19   | 30   | 9     | 26   | 22    | 29   |
| 29    | 26   | 1    | 16    | 3    | 29    |      |
| 5     | 2    | 8    | 23    | 10   | 26    | 3    |
| 12    | 9    | 15   | 30    | 17   | 23    | 10   |
| 19    | 16   | 22   | 1     | 24   | 20    | 17   |
| 26    | 23   | 29   | 8     | 31   | 27    | 24   |
| 1     | 2    | 9    | 15    |      |       |      |
| 8     | 5    | 12   | 22    |      |       |      |
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| 8     | 5    |      |       |      |       |      |
| 15    | 12   |      |       |      |       |      |
| 22    | 19   |      |       |      |       |      |
| 29    | 26   |      |       |      |       |      |
| 5     | 2    |      |       |      |       |      |
| 12    | 9    |      |       |      |       |      |
| 19    | 16   |      |       |      |       |      |
| 26    | 23   |      |       |      |       |      |
| 1     | 2    |      |       |      |       |      |
| 8     | 5    |      |       |      |       |      |
| 15    | 12   |      |       |      |       |      |
| 22    | 19   |      |       |      |       |      |
| 29    | 26   |      |       |      |       |      |

